

WEST

Generate Collection

L7: Entry 3 of 7

File: USPT

Nov 9, 1999

DOCUMENT-IDENTIFIER: US 5980954 A

TITLE: Treatment of autoimmune diseases

DEPR:

Preferably, the stressors to which the leucocytes in the extracted blood aliquot are subjected are a temperature stress (blood temperature above body temperature), an oxidative environment, such as a mixture of ozone and oxygen bubbled through the blood aliquot, and ultraviolet radiation, simultaneously or successively, but preferably simultaneously.

WEST

Generate Collection

L7: Entry 4 of 7

File: USPT

Nov 10, 1998

DOCUMENT-IDENTIFIER: US 5834030 A

TITLE: Method of increasing the concentration of nitric oxide in human blood

CLPR:

12. The method of claim 11 wherein the ozone gas is contacted with a blood aliquot as a mixture of ozone in an oxygen-ozone gas stream having an ozone concentration of from 0.5 .mu.g/ml to about 100 .mu.g/ml.

CLPV:

(b) in vitro contacting the extracted aliquot of blood with a nitric oxide concentration-increasing effective amount of ozone gas, as a mixture of ozone in an oxygen-ozone gas stream having an ozone concentration of from about 0.5 .mu.g/ml to about 100 .mu.g/ml, while the aliquot of blood is simultaneously being subjected to ultraviolet radiation, for a period of time from about 0.5-10 minutes and at a temperature in the range of 0.degree.-56.degree. C. which does not cause marked hemolysis or major loss of platelets in the blood aliquot; and

WEST

Generate Collection

L7: Entry 2 of 7

File: USPT

Jul 11, 2000

DOCUMENT-IDENTIFIER: US 6086552 A

TITLE: Treatment of chronic post-traumatic pain syndromes

BSPR:

Preferably, the stressors to which the leucocytes in the extracted blood aliquot are subjected are a temperature stress (blood temperature above body temperature), an oxidative environment, such as a mixture of ozone and oxygen bubbled through the blood aliquot, and ultraviolet radiation, simultaneously or successively, but preferably simultaneously.

CLPR:

3. The process of claim 2 wherein the oxidative environment stressor is a mixture of medical grade oxygen and ozone, wherein the ozone content is from 0.1 to 100 .mu.g/ml, bubbled through the blood aliquot.

CLPV:

treating the extracted aliquot extracorporeally simultaneously with an oxidative environment consisting essentially of a mixture of medical grade oxygen and ozone, wherein the ozone content is from 0.1 to 100 .mu.g/ml, bubbled through the blood aliquot;

WEST

Generate Collection

L7: Entry 6 of 7

File: DWPI

Jul 11, 2000

DERWENT-ACC-NO: 1999-215431

DERWENT-WEEK: 200037

COPYRIGHT 2000 DERWENT INFORMATION LTD

TITLE: Treating reflex sympathetic dystrophy comprises collecting aliquot of blood from patient, subjecting it to ozone/oxygen mixture and ultraviolet light and reinjecting blood into patient

INVENTOR: BOLTON, A E

PATENT-ASSIGNEE:

ASSIGNEE

VASOGEN INC

CODE

VASON

PRIORITY-DATA:

1997CA-2206180

May 27, 1997

1998US-0090465

June 4, 1998

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6086552 A	July 11, 2000	N/A	000	A61M037/00
CA 2206180 A	November 27, 1998	N/A	018	A61K035/14

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-NO
US 6086552A	June 4, 1998	1998US-0090465	N/A
CA 2206180A	May 27, 1997	1997CA-2206180	N/A

INT-CL (IPC): A61B 19/00; A61K 35/14; A61M 37/00

ABSTRACTED-PUB-NO: CA 2206180A

BASIC-ABSTRACT:

NOVELTY - The process for treating reflex sympathetic dystrophy (RSD) comprises extracting an aliquot of blood from the patient, treating the extracted aliquot extracorporeally with ultraviolet light and an ozone/oxygen mixture, and reinjecting the treated aliquot into the patient.

ACTIVITY - Vasoconstrictors/Vasodilators

MECHANISM OF ACTION - Stimulates leucocytes and/or platelets to increase the release of vasodilators and/or vasoconstrictors.

USE - The treated aliquot is useful for treating reflex sympathetic dystrophy in human patient (claimed). A treated aliquot may also be useful for treating diabetic ulcers. A patient received 9 treatments (3 treatments/week for 3 weeks) followed by a further course of 9 treatments after a 3 week interval and after a 1-2 week interval, treatments resumed on a twice weekly basis for 6

weeks finally followed by 1 treatment/week for 4 weeks. The patient reported a substantial alleviation, almost complete cure of RSD symptoms (no data given).

ADVANTAGE - Enhancement of endothelial performance is achieved therefore improving vascular condition. The source of the blood is from the patient him-/herself therefore not requiring extraneous antigens.

ABSTRACTED-PUB-NO:

US 6086552A

EQUIVALENT-ABSTRACTS:

NOVELTY - The process for treating reflex sympathetic dystrophy (RSD) comprises extracting an aliquot of blood from the patient, treating the extracted aliquot extracorporeally with ultraviolet light and an ozone/oxygen mixture, and reinjecting the treated aliquot into the patient.

ACTIVITY - Vasoconstrictors/Vasodilators

MECHANISM OF ACTION - Stimulates leucocytes and/or platelets to increase the release of vasodilators and/or vasoconstrictors.

USE - The treated aliquot is useful for treating reflex sympathetic dystrophy in human patient (claimed). A treated aliquot may also be useful for treating diabetic ulcers. A patient received 9 treatments (3 treatments/week for 3 weeks) followed by a further course of 9 treatments after a 3 week interval and after a 1-2 week interval, treatments resumed on a twice weekly basis for 6 weeks finally followed by 1 treatment/week for 4 weeks. The patient reported a substantial alleviation, almost complete cure of RSD symptoms (no data given).

ADVANTAGE - Enhancement of endothelial performance is achieved therefore improving vascular condition. The source of the blood is from the patient him-/herself therefore not requiring extraneous antigens.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: TREAT REFLEX SYMPATHETIC DYSTROPHY COMPRISE COLLECT ALIQUOT BLOOD
PATIENT SUBJECT OZONE OXYGEN MIXTURE ULTRAVIOLET LIGHT BLOOD PATIENT

DERWENT-CLASS: B04 P31 P34

CPI-CODES: B04-B04D5; B11-C08E2; B12-K04A2; B14-F02C; B14-F02D;

CHEMICAL-CODES:

Chemical Indexing M2 *01*

Fragmentation Code

C108 C550 C810 M411 M424 M431 M740 M782 M904 M905

M910 N103 P411 P527 P528

Specific Compounds

01779K 01779T 01779M

Registry Numbers

1779U

Chemical Indexing M2 *02*

Fragmentation Code

C408 C550 C810 M411 M424 M431 M740 M782 M904 M905

M910 N103 P411 P527 P528

Specific Compounds

01887K 01887T 01887M

Registry Numbers

1887U

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1779U; 1887U

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1999-063541

WEST

Generate Collection

L7: Entry 5 of 7

File: USPT

Jan 7, 1997

DOCUMENT-IDENTIFIER: US 5591457 A

TITLE: Method of inhibiting the aggregation of blood platelets and stimulating the immune systems of a human

CLPR:

5. The method of claim 1 wherein the blood aliquot is maintained at a temperature of about 42.5.degree. C. while being contacted with the ozone gas in admixture with the oxygen gas, and ultraviolet radiation.

CLPR:

7. The method of claim 1 wherein time blood aliquot is contacted with the ozone gas in admixture with oxygen gas and ultraviolet radiation for a period of about 3 minutes.

CLPV:

contacting the selected blood aliquot simultaneously with a blood platelet aggregation-inhibiting effective amount of ozone gas in admixture with oxygen gas, and ultraviolet radiation, while maintained at a temperature in the range from about 37.degree. C. to about 43.degree. C. for a period for about 0.5 minutes to about 10 minutes;

WEST**End of Result Set**

Generate Collection

L7: Entry 7 of 7

File: DWPI

Jan 7, 1997

DERWENT-ACC-NO: 1997-117780

DERWENT-WEEK: 199901

COPYRIGHT 2000 DERWENT INFORMATION LTD

TITLE: Treatment of e.g. Raynaud's disease - by contacting human blood aliquot with ozone gas and ultraviolet radiation, then administering patient with the disease

INVENTOR: BOLTON, A E

PATENT-ASSIGNEE:

ASSIGNEE

CODE

VASOGEN INC

VASON

PRIORITY-DATA:

1992US-0941327

September 4, 1992

1992US-0832798

February 7, 1992

1994US-0352802

December 1, 1994

PATENT-FAMILY:

PUB-NO

PUB-DATE

LANGUAGE

PAGES

MAIN-IPC

US 5591457 A

January 7, 1997

N/A

010

A01N001/00

APPLICATION-DATA:

PUB-NO

APPL-DESCRIPTOR

APPL-NO

APPL-NO

US 5591457A

February 7, 1992

1992US-0832798

CIP of

US 5591457A

September 4, 1992

1992US-0941327

Cont of

US 5591457A

December 1, 1994

1994US-0352802

N/A

INT-CL (IPC): A01N 1/00; A61K 33/00; A61L 2/10

RELATED-ACC-NO: 1993-272579;1993-272580 ;1999-008656

ABSTRACTED-PUB-NO: US 5591457A

BASIC-ABSTRACT:

Treatment of Raynaud's disease comprises: (a) selecting an aliquot of 0.01-400 ml of human blood of a type compatible with the blood of a patient with Raynaud's disease; (b) contacting the selected blood aliquot simultaneously with (i) ozone gas (in an amt. effective to inhibit blood platelet aggregation) in admixt. with oxygen gas and (ii) ultraviolet radiation, while maintaining the temp. at 37-43 deg. C for 0.5-10 mins.; and (c) administering the treated blood aliquot to a human patient with Raynaud's disease.

USE - The process is useful for treatment of conditions associated with blood

platelet aggregation, such as arterial occlusive diseases (such as peripheral vascular disease), thrombotic diseases (such as coronary thrombosis, pulmonary thrombosis, arterial thrombosis or venous thrombosis), circulatory disorders (such as Raynaud's disease, stroke or pre-eclampsia), hypertension and immune system disorders. The treatment increases blood levels of nitric oxide and prostacyclin, and by stimulating T-lymphocytes and monocytes.

ADVANTAGE - The process avoids problems associated with admin. of drugs.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: TREAT DISEASE CONTACT HUMAN BLOOD ALIQUOT OZONE GAS ULTRAVIOLET
RADIATE ADMINISTER PATIENT DISEASE

DERWENT-CLASS: B04 D22 P34

CPI-CODES: B04-B04D5; B05-C08; B11-C09; B14-F04; B14-G02D; B14-G03; D09-A;

CHEMICAL-CODES:

Chemical Indexing M1 *01*

Fragmentation Code

M423 M431 M782 M903 P433 P434 P519 P520 P522 P526

P813 Q261 V600 V615

Chemical Indexing M2 *02*

Fragmentation Code

C408 C550 C810 M411 M431 M782 M903 M904 M910 P433

P434 P519 P520 P522 P526 P813 Q261

Specific Compounds

01887M

Registry Numbers

1887U

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1887U

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1997-037986

Non-CPI Secondary Accession Numbers: N1997-097060

WEST

Generate Collection

L7: Entry 1 of 7

File: USPT

Oct 24, 2000

DOCUMENT-IDENTIFIER: US 6136308 A

TITLE: Treatment of stress and preconditioning against stress

DEPR:

The application of the oxidative stressor preferably involves exposing the aliquot to a mixture of medical grade oxygen and ozone gas, most preferably by bubbling through the aliquot, at the aforementioned temperature range, a stream of medical grade oxygen gas having ozone as a minor component therein. The ozone gas may be provided by any conventional source known in the art. Suitably the gas stream has an ozone content of from about 1.0-100 .mu.g/ml, preferably 3-70 .mu.g/ml and most preferably from about 5-50 .mu.g/ml. The gas stream is supplied to the aliquot at a rate of from about 0.01-2 liters per minute, preferably 0.05-1.0 liters per minute, and most preferably at about 0.06-0.30 liters per minute (STP). Alternative application of oxidative stressors include addition of peroxides such as hydrogen peroxide to the blood, and addition of biochemically acceptable chemical oxidizing agents such as permanganates and periodates to the blood aliquot.

DEPR:

A group of 63 SHRs was divided into two approximately equal sub-groups, A and B. Sub-group A was given two courses of injections of blood from the pool described in Example 1, the injected blood having been treated with ultraviolet light, ozone-oxygen gas and elevated temperature stressors simultaneously, also as described in Example 1. The first course of injections started at age 7 weeks, and comprised 10 injections, over a period of 10 days, of a 150 .mu.l aliquot of the treated blood intragluteally injected. The second course of injections commenced at age 12 weeks, and comprised 10 injections, administered daily, of the same volumes of treated blood administered in the same manner. The animals of sub-group B were given injections of physiological saline, at the same times and in the same quantities, and thus acted as controls.

CLPR:

4. The process according to claim 3 wherein the oxidative environment stressor to which the blood aliquot is subjected is a mixture of medical grade oxygen and ozone, with an ozone content from about 0.1-100 .mu.g/ml.

CLPR:

25. The process according to claim 24 wherein the oxidative environment stressor to which the blood aliquot is subjected is a mixture of medical grade oxygen and ozone, with an ozone content from about 0.1-100 .mu.g/ml.

CLPR:

35. The process according to claim 34 wherein the oxidative environment stressor to which the blood aliquot is subjected is a mixture of medical grade oxygen and ozone, with an ozone content from about 0.1-100 .mu.g/ml.

WEST[Help](#)[Logout](#)[Interrupt](#)[Main Menu](#)[Search Form](#)[Posting Counts](#)[Show S Numbers](#)[Edit S Numbers](#)[Preferences](#)**Search Results -**

Term	Documents
(15 AND 14).USPT,JPAB,EPAB,DWPI,TDBD.	4

Database:

US Patents Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Refine Search:

114

[Clear](#)**Search History****Today's Date: 11/15/2000**

<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT,JPAB,EPAB,DWPI,TDBD	115 and 114	4	<u>L20</u>
USPT,JPAB,EPAB,DWPI,TDBD	17 and 118	2	<u>L19</u>
USPT,JPAB,EPAB,DWPI,TDBD	apoptosis	3695	<u>L18</u>
USPT,JPAB,EPAB,DWPI,TDBD	114 same 11 same 12 same 14	1	<u>L17</u>
USPT,JPAB,EPAB,DWPI,TDBD	115 same 114	1	<u>L16</u>
USPT,JPAB,EPAB,DWPI,TDBD	14 same 12 same 11	55	<u>L15</u>
USPT,JPAB,EPAB,DWPI,TDBD	111 or 112 or 113	41002	<u>L14</u>
USPT,JPAB,EPAB,DWPI,TDBD	toxin	18138	<u>L13</u>
USPT,JPAB,EPAB,DWPI,TDBD	ingestion	12223	<u>L12</u>
USPT,JPAB,EPAB,DWPI,TDBD	poisoning	12757	<u>L11</u>
USPT,JPAB,EPAB,DWPI,TDBD	poisoning and 17	0	<u>L10</u>
USPT,JPAB,EPAB,DWPI,TDBD	18 and 17	0	<u>L9</u>
USPT,JPAB,EPAB,DWPI,TDBD	ingestion	12223	<u>L8</u>
USPT,JPAB,EPAB,DWPI,TDBD	13 same 16	7	<u>L7</u>
USPT,JPAB,EPAB,DWPI,TDBD	14 same 15	3541	<u>L6</u>
USPT,JPAB,EPAB,DWPI,TDBD	aliquot	48102	<u>L5</u>
USPT,JPAB,EPAB,DWPI,TDBD	blood	242673	<u>L4</u>
USPT,JPAB,EPAB,DWPI,TDBD	11 same 12	11550	<u>L3</u>
USPT,JPAB,EPAB,DWPI,TDBD	oxygen	524118	<u>L2</u>
USPT,JPAB,EPAB,DWPI,TDBD	ozone	53598	<u>L1</u>

Trying 3106016892...Open

Welcome to STN International! Enter x:x
LOGINID:ssspta1815mxw
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 Aug 21 CAS patent coverage expanded
NEWS 3 Aug 24 TABULATE Now Available in More STN Databases
NEWS 4 Aug 28 MEDLINE from 1958 to Date - Only on STN
NEWS 5 Sep 7 DGENE GETSIM ALERT: Similarity Current-Awareness
Searching of Biosequences
NEWS 6 Sep 11 Textile Technology Digest (TEXTILETECH) now available
on STN
NEWS 7 Sep 21 KKF renamed DKILIT
NEWS 8 Sep 29 The Philippines Inventory of Chemicals and Chemical
Substances (PICCS) has been added to CHEMLIST
NEWS 9 Oct 27 New Extraction Code PAX now available in Derwent
Files
NEWS 10 Oct 27 SET ABBREVIATIONS and SET PLURALS extended in
Derwent World Patents Index files
NEWS 11 Oct 27 Patent Assignee Code Dictionary now available
in Derwent Patent Files
NEWS 12 Oct 27 Plasdoc Key Serials Dictionary and Echoing added to
Derwent Subscriber Files WPIDS and WPIX

NEWS EXPRESS FREE UPGRADE 5.0D FOR STN EXPRESS 5.0 WITH DISCOVER!
(WINDOWS) NOW AVAILABLE
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

All use of STN is subject to the provisions of the STN Customer
agreement. Please note that this agreement limits use to scientific
research. Use for software development or design or implementation
of commercial gateways or other similar uses is prohibited and may
result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 17:51:53 ON 15 NOV 2000

=> index bioscience, chemistry

FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
FILE 'PAPERCHEM' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
0.15	0.15

FULL ESTIMATED COST

INDEX 'ADISALERTS, ADISINSIGHT, AGRICOLA, AIDSLINE, ANABSTR, AQUASCI,

BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO,
CABA,
CANCERLIT, CAPLUS, CEABA, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU,
DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 17:52:24 ON 15
NOV 2000

80 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s oxygen? (p) ozone? (p) blood? (p) aliquot?

0* FILE BIOCOMMERCE
1 FILE BIOSIS
0* FILE BIOTECHABS
0* FILE BIOTECHDS
0* FILE BIOTECHNO
4 FILE CAPLUS
0* FILE CEABA
0* FILE CIN

19 FILES SEARCHED...

1 FILE EMBASE
0* FILE ESBIOBASE
0* FILE FOMAD
0* FILE FOREGE
0* FILE FROSTI
0* FILE FSTA

36 FILES SEARCHED...

5 FILE IFIPAT
0* FILE KOSMET
0* FILE MEDICONF
1 FILE MEDLINE
0* FILE NTIS
1 FILE SCISEARCH
3 FILE TOXLIT

54 FILES SEARCHED...

5 FILE USPATFULL
7 FILE WPIDS
7 FILE WPINDEX
0* FILE ALUMINIUM
0* FILE APILIT
0* FILE APILIT2
0* FILE BABS
0* FILE CAOLD
0* FILE CBNB
0* FILE COMPENDEX
0* FILE DKILIT
0* FILE INSPEC
0* FILE INSPHYS

68 FILES SEARCHED...

0* FILE METADEX
0* FILE RAPRA
0* FILE RUSSCI
0* FILE VTB
0* FILE WSCA

10 FILES HAVE ONE OR MORE ANSWERS, 80 FILES SEARCHED IN STNINDEX

L1 QUE OXYGEN? (P) OZONE? (P) BLOOD? (P) ALIQUOT?

=> d rank

F1 7 WPIDS
F2 7 WPINDEX
F3 5 IFIPAT

F4	5	USPA	LL
F5	4	CAPLUS	
F6	3	TOXLIT	
F7	1	BIOSIS	
F8	1	EMBASE	
F9	1	MEDLINE	
F10	1	SCISEARCH	

=> file f1-3, f5-f10

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.25	2.40

FILE 'WPIDS' ENTERED AT 17:55:09 ON 15 NOV 2000
COPYRIGHT (C) 2000 DERWENT INFORMATION LTD

FILE 'WPINDEX' ACCESS NOT AUTHORIZED

FILE 'IFIPAT' ENTERED AT 17:55:09 ON 15 NOV 2000
COPYRIGHT (C) 2000 IFI CLAIMS(R) Patent Services (IFI)

FILE 'CAPLUS' ENTERED AT 17:55:09 ON 15 NOV 2000
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2000 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'TOXLIT' ENTERED AT 17:55:09 ON 15 NOV 2000

FILE 'BIOSIS' ENTERED AT 17:55:09 ON 15 NOV 2000
COPYRIGHT (C) 2000 BIOSIS(R)

FILE 'EMBASE' ENTERED AT 17:55:09 ON 15 NOV 2000
COPYRIGHT (C) 2000 Elsevier Science B.V. All rights reserved.

FILE 'MEDLINE' ENTERED AT 17:55:09 ON 15 NOV 2000

FILE 'SCISEARCH' ENTERED AT 17:55:09 ON 15 NOV 2000
COPYRIGHT (C) 2000 Institute for Scientific Information (ISI) (R)

=> s 11

L2 23 L1

=> dup rem 12

PROCESSING COMPLETED FOR L2
L3 14 DUP REM L2 (9 DUPLICATES REMOVED)

=> d 1-14 ab,bib

L3 ANSWER 1 OF 14 IFIPAT COPYRIGHT 2000 IFI DUPLICATE 1
AB Reflex sympathetic dystrophy in a human patient is treated by collecting an **aliquot** of the patient's **blood** (e.g. 10 cc in volume), and subjecting it simultaneously to **ozone/oxygen** mixture and ultraviolet light, at a predetermined, elevated (e.g. 42.5 degree(s) C.) temperature, for approximately 3 minutes. After cooling, the treated **blood aliquot** is reinjected into the patient via the gluteal muscle. Reflex sympathetic dystrophy is alleviated following a course of such treatments.
AN 3350152 IFIPAT;IFIUDB;IFICDB
TI TREATMENT OF CHRONIC POST-TRAUMATIC PAIN SYNDROMES
INF Bolton; Anthony E., Tideswell, GB
IN Bolton Anthony E (GB)

PAF Vasogen, Inc., Sissauga, CA
PA Vasogen Inc CA (9437)
EXNAM Polutta, Mark O
EXNAM Bianco, Patricia M
AG Nixon & Vanderhye
PI US 6086552 20000711
AI US 1998-90465 19980604
FI US 6086552 20000711
DT UTILITY
FS MECHANICAL
CLMN 7

L3 ANSWER 2 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
AB WO 200041705 A UPAB: 20000818

NOVELTY - The use of an aliquot of blood from a mammal, which has been reacted ex vivo with at least one stressor selected from temperature, ultraviolet light and an oxidative environment, for alleviating or protecting against the symptoms of a disorder involving accelerated rates of apoptosis or necrosis in a mammalian body, is new.

DETAILED DESCRIPTION - The use of an aliquot of blood from a mammal, which has been extracted and reacted ex vivo with at least one stressor selected from temperature above or below body temperature, ultraviolet light and an oxidative environment, for alleviating or protecting against the symptoms of a disorder involving accelerated rates of apoptosis or necrosis in a mammalian body, is new. The medical disorder is selected from radiation exposure disorders, chemical exposure and ingestion disorders, neurological disorders and physical disorders and treatment is by reducing the rate of or susceptibility to apoptosis or necrosis of tissues and organs of the body.

ACTIVITY - Cytostatic; antiemetic; dermatological; antidote; hepatotropic; osteopathic; antibacterial; immunostimulant; antiparkinsonian; neuroprotective; nootropic; vulnerary.

MECHANISM OF ACTION - None given.

USE - The method is useful for treating or preventing a radiation exposure disorder, an ionizing radiation exposure disorder or ultraviolet light exposure disorder, a chemical exposure or ingestion disorder, chemical poisoning, food poisoning from bacterial toxins, toxic drug ingestion overdoses and side effects, disorders from exposure to nerve gases and mustard gas, liver disorders from chemicals and toxins, kidney disorders from ingestion of aminoglycoside antibiotics, radiographic contrast dyes or cyclosporin nephrotoxicity, hematopoietic disorders and immunodeficiency disorders derived from drug or toxin induced bone marrow suppression, infections from bacterial toxins, ozone exposure, solvent exposure or the effects of immunosuppressants. The method is also useful for treating neurological disorders such as Parkinson's disease, senile dementia or Alzheimer's disease and physical traumas such as wounding, burns, loss of blood or a physical accident (all claimed).

Dwg.0/4

AN 2000-452560 [39] WPIDS

DNC C2000-138032

TI Use of mammalian blood pre-treated with a stressor such as UV light for treatment and prevention against disorders involving apoptosis or necrosis

in mammals.

DC B04

IN CHENG, H; DESROSIER, C; HAMET, P; TREMBLAY, J

PA (CHEN-I) CHENG H; (DESR-I) DESROSIER C; (HAME-I) HAMET P; (TREM-I) TREMBLAY J

CYC 89

PI WO 2000041705 A1 20000720 (200039)* EN 30p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL
TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2000030280 A 000801 (200054)
ADT WO 2000041705 A1 2000-CA29 20000111; AU 2000030280 A AU 2000-30280
20000111
FDT AU 2000030280 A Based on WO 200041705
PRAI US 1999-115636 19990112

L3 ANSWER 3 OF 14 IFIPAT COPYRIGHT 2000 IFI

AB Symptoms of stress such as elevated blood pressure in mammals are treated, and mammalian bodies are preconditioned to manifest reduced adverse reactions to subsequently encountered stresses, by injecting into

the mammalian patient a small quantity of the patient's own blood which has been previously extracted and subjected extracorporeally to at least one stressor, such as ultraviolet radiation, an oxidative environment, ozone-oxygen and mild heating, especially infra-red radiation causing mild heating. Particularly beneficial combinations of stressors are simultaneous applications of UV radiation and an ozone-oxygen gas mixture

bubbled through the blood sample to provide the oxidative environment, or

simultaneous application of UV radiation, ozoneoxygen gas mixtures and mild heating. One specific use of the invention is in preconditioning against ischemic-reperfusion injury, e.g. prior to surgery.

AN 3404787 IFIPAT;IFIUDB;IFICDB

TI TREATMENT OF STRESS AND PRECONDITIONING AGAINST STRESS

INF Hamet; Pavel, Montreal, CA

Tremblay; Johanne, Montreal, CA

IN Hamet Pavel (CA); Tremblay Johanne (CA)

PAF Centre de Recherche du Centre Hospitalier de l'Universite de Montreal (CHUM), Montreal, CA

Vasogen Ireland Limited, Shannon, IE

PA Vasogen Ireland Ltd IE

Centre de Recherche du Centre Hospitalier de l'Universite de Montreal CA (51518)

EXNAM Witz, Jean C

AG Nixon & Vanderhye

PI US 6136308 20001024

AI US 1998-151653 19980911

PRAI CA 1997-2218625 19971020

CA 1998-2230836 19980227

US 1997-58782 19970912 (Provisional)

US 1997-59172 19970917 (Provisional)

FI US 6136308 20001024

DT UTILITY

FS CHEMICAL

CLMN 41

GI 10 Drawing Sheet(s), 15 Figure(s).

L3 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2000 ACS

AB T-cell mediated delayed type hypersensitivity conditions in mammalian patients are alleviated by a process in which an **aliquot** of **blood** is withdrawn from the patient, treated extracorporeally with a combination of UV radiation and an oxidative environment, such as an **oxygen/ozone** gas mixt. bubbled through the **aliquot**, and then re-injected into the patient.

AN 2000:756534 CAPLUS

TI Extracorporeal treatment of hypersensitivity reaction disorders

IN Sauder, Daniel; Mandel, Arkady; Bolton, Anthony E.

PA Vasogen Ireland Ltd., Ire.

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

PI WO 2000062788 2 20001026 WO 2000-CA4 20000419
W: AE, AG, AM, AT, AU, AZ, BA, BB, BG, BY, CA, CH, CN, CR,
CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI CA 1999-2269364 19990419

L3 ANSWER 5 OF 14 TOXLIT
AB Reflex sympathetic dystrophy in a human patient is treated by collecting
an **aliquot** of the patient's **blood** (e.g. 10 mL in
vol.), and subjecting it simultaneously to **ozone/oxygen**
mixt. and UV light, at a predetd., elevated temp. (e.g. 42.5.degree.) for
.apprx. 3 min. After cooling, the treated **blood aliquot**
is reinjected into the patient via the gluteal muscle. Reflex sympathetic
dystrophy is alleviated following a course of such treatments.
AN 2000:42831 TOXLIT
DN CA-133-084290V
TI Treatment of chronic post-traumatic pain syndromes.
AU Bolton AE
SO (2000). U.S. PATENT NO. 6086552 07/11/2000 (Vasogen, Inc.).
CODEN: USXXAM.
CY CANADA
DT Patent
FS CA
LA English
OS CA 133:84290
EM 200008

L3 ANSWER 6 OF 14 IFIPAT COPYRIGHT 2000 IFI DUPLICATE 2
AB An autoimmune vaccine is provided for administration to human patients
to
alleviate the symptoms of autoimmune diseases such as rheumatoid
arthritis. The vaccine comprises an aliquot of the patient's blood,
containing, inter alia, leukocytes having upregulated expression of
various cell surface markers and lymphocytes containing decreased
amounts
of certain stress proteins. It is produced by subjecting the blood
aliquot extracorporeally to certain stressors, namely oxidizing agents,
UV radiation and elevated temperature.
AN 3231944 IFIPAT;IFIUDB;IFICDB
TI TREATMENT OF AUTOIMMUNE DISEASES; MODIFYING THE EXTRACTED BLOOD ALIQUOT
FROM PATIENT BY SUBJECTING IT TO AN IMMUNE SYSTEM-MODIFYING AMOUNT OF
OZONE GAS AND ULTRAVIOLET RADIATION, FORMING AN AUTOIMMUNE VACCINE TO
TREAT RHEUMATOID ARTHRITIS
INF Bolton; Anthony E., Toronto, CA
IN Bolton Anthony E (CA)
PAF Vasogen Ireland Limited, IE
PA Vasogen Ireland Ltd IE (51518)
EXNAM Chan, Christina Y
EXNAM Nolan, Patrick
AG Hirons, Robert G.
Ridout & Maybee
PI US 5980954 19991109
AI US 1996-754348 19961122
XPD 7 Feb 2012
RLI US 1992-832798 19920207 CONTINUATION-IN-PART ABANDONED
US 1992-941327 19920904 CONTINUATION-IN-PART ABANDONED
US 1994-352802 19941201 CONTINUATION-IN-PART 5591457
PRAI GB 1996-176110 19960822
FI US 5980954 19991109
US 5591457

DT UTILITY
FS CHEMICAL
OS CA 131:317775
CLMN 12
GI 1 Drawing Sheet(s), 1 Figure(s).

L3 ANSWER 7 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AB WO 9913890 A UPAB: 20001102

NOVELTY - An aliquot of mammalian blood subjected extracorporeally to at least one stressor selected from an oxidative environment, UV radiation and elevated temperature up to about 45 deg. C is used in treating symptoms of stress and/or in preconditioning against the adverse effects of stress to be encountered subsequently.

ACTIVITY - None given.

MECHANISM OF ACTION - Blood cell SAP kinase pathway activator.

USE - The method is used in treatment of unstable angina and in decreasing infarct size in mammals. It is used in protecting mammalian donor organs, a treated aliquot of the donor's blood being administered

to

the donor prior to removal of the organ. The method is used in preconditioning mammalian patients to better withstand the adverse

effects

of ischemic stress to be encountered as a result of subsequent ischemia-reperfusion of a body organ of the patient, particularly the kidney, heart, liver, intestine or brain. The method is used when the patient suffers from atherosclerosis and is scheduled for general anesthesia prior to ischemia of a vital organ in a surgical procedure

e.g.

open-heart surgery with cardio-pulmonary bypass.

Dwg.1/15

AN 1999-243940 [20] WPIDS

CR 1999-601984 [52]

DNC C1999-071156

TI Treatment of symptoms of stress e.g. ischemic stress.

DC B04

IN HAMET, P; TREMBLAY, J

PA (UYMO-N) UNIV MONTREAL CENT RECH CENT HOSPITALIER; (VASO-N) VASOGEN

IRELAND LTD; (HAME-I) HAMET P; (TREM-I) TREMBLAY J

CYC 83

PI WO 9913890 A1 19990325 (199920)* EN 51p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL

OA PT SD SE SZ UG ZW

W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE

GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG

MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG

UZ VN YU ZW

AU 9891480 A 19990405 (199933)

CA 2230836 A1 19990827 (200005) EN

EP 1011696 A1 20000628 (200035) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT

RO SE SI

US 6136308 A 20001024 (200055)

ADT WO 9913890 A1 WO 1998-CA869 19980911; AU 9891480 A AU 1998-91480 19980911;

CA 2230836 A1 CA 1998-2230836 19980227; EP 1011696 A1 EP 1998-943592

19980911, WO 1998-CA869 19980911; US 6136308 A Provisional US 1997-58782

19970912, Provisional US 1997-59172 19970917, US 1998-151653 19980911

FDT AU 9891480 A Based on WO 9913890; EP 1011696 A1 Based on WO 9913890

PRAI CA 1998-2230836 19980227; US 1997-58782 19970912; US 1997-59172

19970917; CA 1997-2218625 19971020

L3 ANSWER 8 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AB CA 2218625 A UPAB: 19991210

NOVELTY - Use of an **aliquot** of compatible mammalian

blood which has been subjected extracorporeally to at least one stressor selected from an oxidative environment, ultra-violet radiation

and elevated temperature up to 45 deg. C, for the treatment of stress and/or preconditioning against the adverse effects of stress to be encountered subsequently.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(A) use of an **aliquot** of compatible mammalian **blood** as above for the treatment of unstable angina and for decreasing infarct size; and

(B) use of an **aliquot** of compatible mammalian **blood** as above for protecting mammalian donor organs for transplantation.

ACTIVITY - Tranquilizer; antianginal; vasotropic.

Blood from sacrificed inbred genetically hypertensive rats (SHR's) was collected, treated with sodium citrate anticoagulant and pooled. A portion of the **blood** was then placed in a sterile container and subjected to ultraviolet radiation (253.7 nm), **ozone** /**oxygen** gas (13.5-15.5 micro g/ml) bubbled through the **blood** sample at 60 ml/minute, increasing to 180 ml/minute, and 42.5 deg. C for 3 minutes. A further portion of untreated **blood** was pooled as a control.

A total of 44 7 week old SHR's were divided into 3 groups, A, B and C. Group A received a daily intragluteal injection of 150 micro l of the treated **blood** for 10 days. Group B received the untreated **blood** in the same amount and at the same time daily. Group C received at the same time and in the same amount, an injection of physiological saline. Four days after completion of the injections the animals had a telemetry probe surgically inserted into the femoral artery of each animal, for measuring heartbeat, systolic **blood** pressure, and diastolic **blood** pressure. These parameters were measured for 10 days following surgery. Results are shown in the figure.

MECHANISM OF ACTION - None given.

USE - The process is used for the treatment of stress and unstable angina, for preconditioning a patient to improve the patient's resistance and reaction to subsequently encountered stress, for the reduction of infarct size and for protecting mammalian donor organs for transplantation

(claimed). The process is especially useful in patients suffering from hypertension, and can help prevent ischemia.

ADVANTAGE - The process preconditions patients such that they exhibit notably reduced adverse reactions to subsequently encountered stress, as compared with a similar but untreated patient. The process protects tissues and organs from stress-induced damage. The process can increase the useful life of transplant organs.

DESCRIPTION OF DRAWING(S) - The figure shows the results of tests on inbred genetically hypertensive rats which were injected with treated **blood** (A), untreated **blood** (B) and saline (C).

Dwg.1/8

AN 1999-601984 [52] WPIDS

CR 1999-243940 [19]

DNC C1999-175258

TI Use of an aliquot of compatible mammalian blood for the treatment of stress and/or preconditioning against the adverse effects of stress.

DC B04 B06

IN HAMET, P; TREMBLAY, J

PA (HAME-I) HAMET P; (TREM-I) TREMBLAY J

CYC 1

PI CA 2218625 A1 19990312 (199952)* EN 27p

ADT CA 2218625 A1 CA 1997-2218625 19971020

PRAI US 1997-58867 19970912

L3 ANSWER 9 OF 14 TOXLIT

AB An autoimmune vaccine is provided for administration to human patients to alleviate the symptoms of autoimmune diseases such as rheumatoid arthritis. The vaccine comprises an **aliquot** of the patient's **blood**, contg., inter alia, leukocytes having upregulated expression of various cell surface markers and lymphocytes contg.

decreased amts. certain stress proteins. It is produced by subjecting the **blood aliquot** extracorporeally to certain stressors, namely oxidizing agents, UV radiation and elevated temp. **Blood** from patients with active rheumatoid arthritis was removed and treated with a gaseous **oxygen/ozone** mixt. and UV radiation at 253.7 nm at 42.5.degree. for 3 min before return to the patients.

AN 1999:90843 TOXLIT
DN CA-131-317775H
TI Treatment of autoimmune diseases with extracorporeally treated blood vaccines.
AU Bolton AE
SO (1999). U.S. PATENT NO. 5980954 11/09/1999 (Vasogen Ireland Limited). CODEN: USXXAM.
CY IRELAND
DT Patent
FS CA
LA English
OS CA 131:317775
EM 199912

L3 ANSWER 10 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
DUPLICATE

3
AB US 5834030 A UPAB: 19990107
Inducing relaxation of the smooth muscle of **blood** vessels of a human, to cause enlargement in the diameter of the **blood** vessels, comprises: (a) extracting a 0.01-400 ml **aliquot** of **blood**; (b) in vitro contacting the extracted **blood** with a nitric oxide concentration-increasing amount of **ozone** gas, and ultraviolet (UV) radiation for 0.5-10 minutes at 0-56 deg. C, which does not cause marked haemolysis in the **blood** nor major loss of platelets from the **blood**, to produce an **aliquot** of treated **blood**; and (c) increasing the nitric oxide concentration in the **blood** of the patient by administering the treated **blood**. The **ozone** gas is an **oxygen/ozone** gas stream having an **ozone** concentration of 0.5-100 mu g/ml. Also claimed is a method of increasing the nitric oxide concentration of the **blood**, comprising: (a') as (a) above; (b') as (b) above; (c') monitoring the increase in nitric oxide concentration in at least a portion of the **aliquot** of treated **blood**; and (d') re-administering at least a portion of the treated **blood aliquot** to the patient.

USE - The process is used to alleviate the symptoms of peripheral vascular disease (claimed). The process can also be used in the treatment of other disease states associated with inadequate nitric oxide levels in the **blood**, including stroke, high **blood** pressure, neurological conditions (e.g. depression), tumours, bacterial, viral, protozoal and fungal infections, and impotence.

Dwg.0/0

AN 1999-008656 [01] WPIDS
CR 1993-272579 [34]; 1993-272580 [34]; 1997-117780 [11]
DNN N1999-006223 DNC C1999-002925
TI Inducing relaxation of the smooth muscle of blood vessels - comprises extracting an aliquot of blood, in vitro contacting the blood ozone gas and ultraviolet radiation, and re-administering to the patient.
DC B04 D22 P34
IN BOLTON, A E
PA (VASO-N) VASOGEN INC
CYC 1
PI US 5834030 A 19981110 (199901)* 11p
ADT US 5834030 A CIP of US 1992-832798 19920207, CIP of US 1992-941326 19920904, US 1995-477818 19950607
PRAI US 1995-477818 19950607; US 1992-832798 19920207; US 1992-941326 19920904

Treatment or prevention of diseases or medical disorders, which can be ameliorated by delivery of NO (or its biological equivalent) to tissues affected by the disease or disorder (in humans or animals), comprises administering: (i) nitrosyl-heme-containing donors of NO, (ii) a heme-based **blood** substitute and inhaled NO, (iii) CO-derivatised haemoglobin (Hb) and a nitrosated Hb; or (iv) Hb beta -chains.

Also claimed are: (1) a method for delivering CO to tissues in animals or humans, comprising administering CO-derivatised Hb; (2) a method for treating shock in humans or animals, comprising administering Hb alpha -chains; (3) a method for measuring NO equivalents in S-nitrosohaemoglobin (SNH) and nitrosyl-Fe(II)-Hb (NFH) in **blood** comprising red **blood** cells (RBCs), comprising: (a) lysing the RBCs of a **blood** sample; (b) preparing a desalted protein fraction of the lysed RBCs; (c) subjecting the fraction to photolysis, thus liberating NO from SNH and NFH; and (d) quantitating the NO in the fraction by measuring a chemiluminescence signal generated by a chemical reaction between NO and **ozone**, thus measuring NO equivalents in SNH and NFH; (4) a method for assaying NO production in disease states, comprising: (a) lysing the RBCs of a **blood** sample; (b) preparing a protein fraction of the lysed RBCs; (c) subjecting the fraction to photolysis, thus liberating NO from SNH and NFH; and (d) quantitating the NO in the fraction by measuring a chemiluminescence signal generated by a chemical reaction between NO and **ozone**; (5) a method for assaying NO equivalents in SNH and NFH in purified Hb, comprising measuring NO equivalents in the purified Hb by photolysis-chemiluminescence; (6) a method for measuring NO production in SNH and

NFH

in RBCs, comprising: (a) isolating washed RBCs from **blood** and lysing the RBCs to give a lysate; (b) desalting the lysate; and (c) measuring NO equivalents in the lysate by photolysis-chemiluminescence; (7) a method for measuring NO bound to NFH in RBCs, comprising: (a)

making

a protein fraction from the RBCs; (b) treating the protein fraction with HgCl₂ followed by exposure to air; and (c) subjecting the protein

fraction

to photolysis of the NO ligand of NFH followed by detection of NO by chemiluminescence; (8) a method for assaying SNH, comprising: (a) isolating RBCs from **blood** and lysing the RBCs to give a lysate; (b) desalting the lysate; (c) contacting an **aliquot** of the lysate with mercury ions in excess of protein concentration, thus obtaining a mercury-treated **aliquot** and an untreated **aliquot**; (d) exposing the treated and untreated **aliquots** to **oxygen**; (e) measuring NO equivalents in the **aliquots** by photolysis-chemiluminescence; and (f) determining a quantity of SNH from the NO equivalents measured in (e); (9) a method for assaying thiol-bound NO in SNH in RBCs, comprising: (a) isolating washed RBCs from **blood**; (b) lysing the RBCs to give a lysate; (c) desalting the lysate; (d) dividing the lysate into (i) an **aliquot** contacted with mercury ions in excess of the protein concentration of the lysate

and

(ii) an **aliquot** which is untreated with mercury; (e) exposing both **aliquots** to **oxygen**; (f) isolating a mercury-treated low molecular weight fraction and an untreated low molecular weight fraction from the **aliquots**; (g) contacting the low molecular weight fractions with excess low molecular weight thiol under acidic conditions, thus producing S-nitrosothiol; (h) measuring NO liberated from S-nitrosothiol in the fractions of (g) by photolysis-chemiluminescence; and (i) determining a quantity of thiol-bound NO in SNH from a difference in measurements in (h); (10) a method for measuring SNH and NFH in RBCs, comprising: (a) isolating

washed

RBCs from **blood**; (b) lysing the RBCs; (c) desalting the lysate; and (d) measuring NO equivalents from the lysate by photolysis-chemiluminescence; (11) a method for making stable nitrosyl-

deoxyhaemoglobin comprising adding NO to deoxyhaemoglobin in an aqueous solution such that the ratio of NO to heme is below 1:100 or more than 0.75; (12) a method for making SNO-oxyhaemoglobin, comprising adding NO

to

an aqueous solution of oxyhaemoglobin and a buffer with a pK of at least 9.4, at a concentration of 10-200 mM, at pH 7.4; (13) a method for making nitrosyl-oxyhaemoglobin, comprising adding NO to oxyhaemoglobin in an aqueous solution such that the ratio of NO to Hb is below 1:30; (14) Hb conjugated to an NO-donor; (15) a composition comprising Hb and one or more NO donors; (16) nitrosylhaemoglobin conjugated to one or more electron acceptors; (17) a composition comprising nitrosylhaemoglobin and one or more electron acceptors; (18) Hb conjugated to nitric oxide synthase; (19) a composition comprising Hb and nitric oxide synthase;

(20)

isolated erythrocytes comprising nitrosylhaemoglobin; (21) a method for making isolated erythrocytes comprising nitrosylhaemoglobin comprises incubating deoxygenated erythrocytes in a solution comprising NO; (22) a method for assaying SNH comprising (a)-(c) as in (9) followed by: (d) contacting an **aliquot** of the lysate of (c) with mercury ions in excess over protein concentration, to obtain a mercury-treated **aliquot** and an untreated **aliquot**; (e) exposing the mercury treated **aliquot** and the untreated **aliquot** to **oxygen**; (f) measuring NO equivalents in the two **aliquots** by photolysis chemoluminescence; (g) determining the quantity of SNH from the NO equivalents measured in (f); (23) a method for measuring SNH and NFH in a sample comprising (a)-(c) as in (9) followed by the step of measuring NO equivalents in the lysate by photolysis-chemoluminescence; (24) a method for assaying NFH comprising (a)-(f) as in (22) where step (f) gives information about SNH and NFH + SNH concentration NFH concentration is assayed by subtracting SNH concentration from the figure for NFH = SNH concentration.

USE - The inventions can be used for producing and isolating S-nitrosohaemoglobin ((SNO-Hb) e.g. for use in therapy) by reaction of Hb with S-nitrosothiol in procedures which avoid oxidation of the heme. The methods can also be used for producing isolated, nitrosated and nitrated derivatives of Hbs in which the heme iron may or may not be oxidised. The methods can also be used as methods of therapy for conditions requiring oxidation, scavenging of free radicals, or release of NO+ groups to tissues, involving administration of compositions comprising SNO-Hb, thiols and/or NO-donating agents. Examples of such conditions include ischaemic injury, hypertension, angina, reperfusion injury, inflammation or diseases characterised by thrombosis.

Dwg.0/26

AN 1998-467160 [40] WPIDS
DNN N1998-363982 DNC C1998-141579
TI Haemoglobin(s) modified with S-nitroso groups, and related compounds -
used in treatment of e.g. ischaemic injury, hypertension, angina,
reperfusion injury or inflammation.
DC B04 S03
IN GOW, A J; STAMLER, J S
PA (UYDU-N) UNIV DUKE MEDICAL CENT
CYC 22
PI WO 9834955 A1 19980813 (199840)* EN 167p
RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA JP US
AU 9861502 A 19980826 (199902)
EP 1015490 A1 20000705 (200035) EN
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
ADT WO 9834955 A1 WO 1998-US2383 19980205; AU 9861502 A AU 1998-61502
19980205; EP 1015490 A1 EP 1998-906222 19980205, WO 1998-US2383 19980205
FDT AU 9861502 A Based on WO 9834955; EP 1015490 A1 Based on WO 9834955
PRAI US 1997-874992 19970612; US 1997-796164 19970206

L3 ANSWER 12 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
AB CA 2206180 A UPAB: 19990518
NOVELTY - The process for treating reflex sympathetic dystrophy (RSD)

comprises extracting an **aliquot** of **blood** from the patient, treating the extracted **aliquot** extracorporeally with ultraviolet light and an **ozone/oxygen** mixture, and reinjecting the treated **aliquot** into the patient.

ACTIVITY - Vasoconstrictors/Vasodilators

MECHANISM OF ACTION - Stimulates leucocytes and/or platelets to increase the release of vasodilators and/or vasoconstrictors.

USE - The treated **aliquot** is useful for treating reflex sympathetic dystrophy in human patient (claimed). A treated **aliquot** may also be useful for treating diabetic ulcers. A patient received 9 treatments (3 treatments/week for 3 weeks) followed by a further course of 9 treatments after a 3 week interval and after a 1-2 week interval, treatments resumed on a twice weekly basis for 6 weeks finally followed by 1 treatment/week for 4 weeks. The patient reported a substantial alleviation, almost complete cure of RSD symptoms (no data given).

ADVANTAGE - Enhancement of endothelial performance is achieved therefore improving vascular condition. The source of the **blood** is from the patient him-/herself therefore not requiring extraneous antigens.

Dwg.0/0

AN 1999-215431 [19] WPIDS

DNC C1999-063541

TI Treating reflex sympathetic dystrophy comprises collecting **aliquot** of **blood** from patient, subjecting it to **ozone/oxygen** mixture and ultraviolet light and reinjecting **blood** into patient.

DC B04 P31 P34

IN BOLTON, A E

PA (VASO-N) VASOGEN INC

CYC 2

PI CA 2206180 A 19981127 (199919)* 18p

US 6086552 A 20000711 (200037)#

ADT CA 2206180 A CA 1997-2206180 19970527; US 6086552 A US 1998-90465 19980604

PRAI CA 1997-2206180 19970527; US 1998-90465 19980604

L3 ANSWER 13 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
DUPLICATE

4

AB US 5591457 A UPAB: 19990107

Treatment of Raynaud's disease comprises: (a) selecting an **aliquot** of 0.01-400 ml of human **blood** of a type compatible with the **blood** of a patient with Raynaud's disease; (b) contacting the selected **blood aliquot** simultaneously with (i) **ozone** gas (in an amt. effective to inhibit **blood** platelet aggregation) in admixt. with **oxygen** gas and (ii) ultraviolet radiation, while maintaining the temp. at 37-43 deg. C for 0.5-10 mins.; and (c) administering the treated **blood aliquot** to a human patient with Raynaud's disease.

USE - The process is useful for treatment of conditions associated with **blood** platelet aggregation, such as arterial occlusive diseases (such as peripheral vascular disease), thrombotic diseases (such as coronary thrombosis, pulmonary thrombosis, arterial thrombosis or venous thrombosis), circulatory disorders (such as Raynaud's disease, stroke or pre-eclampsia), hypertension and immune system disorders. The treatment increases **blood** levels of nitric oxide and prostacyclin, and by stimulating T-lymphocytes and monocytes.

ADVANTAGE - The process avoids problems associated with admin. of drugs.

Dwg.0/0

AN 1997-117780 [11] WPIDS

CR 1993-272579 [34]; 1993-272580 [34]; 1999-008656 [01]

DNN N1997-097060 DNC C1997-037986

TI Treatment of e.g. Raynaud's disease - by contacting human **blood aliquot** with **ozone** gas and ultraviolet radiation, then administering patient with

the disease.
DC B04 D22 P34
IN BOLTON, A E
PA (VASO-N) VASOGEN INC
CYC 1
PI US 5591457 A 19970107 (199711)* 10p
ADT US 5591457 A CIP of US 1992-832798 19920207, Cont of US 1992-941327
19920904, US 1994-352802 19941201
PRAI US 1992-941327 19920904; US 1992-832798 19920207; US 1994-352802
19941201

L3 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 5
AB The use of **ozone** in the treatment of peripheral vascular disease
(PVD) is increasing. The purpose of this study was to evaluate the
effect
of **ozone** on Hb **oxygen** affinity in Type-2 diabetic
patients with PVD. Twenty diabetic patients presenting with PVD (Clin.
stage II-IV according to Fontaine) and 20 non-diabetic healthy matched
subjects were studied. In both groups, **aliquots** of
blood were ozonized with mixts. of **oxygen-ozone**
(O2-O3) to reach end-concns. of 6.5, 13, 26 and 78 .mu.g O3 per mL of
substrate. At baseline, diabetic patients presented significantly lower
Hb **oxygen** affinity values but higher plasma levels of free Hb
and malonyl dialdehyde (MDA) than controls. In both diabetic patients

and
controls, exposure of **blood** to **ozone** reduced Hb
oxygen affinity in an all-or-none fashion, without changing
2,3-diphosphoglycerate concns. in erythrocytes. Both free Hb and MDA
concns. showed significant, dose-dependent increases after **blood**
ozonization. Thus, **ozone** caused a significant increase in
oxygen unloading of Hb in both normal subjects and Type-2 diabetic
patients with PVD.

AN 1996:47330 CAPLUS
DN 124:164900
TI Influence of ozone on hemoglobin oxygen affinity in type-2 diabetic
patients with peripheral vascular disease: In vitro studies
AU Coppola, L.; Giunta, R.; Verrazzo, G.; Luongo, C.; Sammartino, A.;
Vicario, C.; Giugliano, D.
CS Department Gerontology, Geriatrics and Metabolic Diseases, Second
University Naples, Naples, Italy
SO Diabete Metab. (1995), 21(4), 252-5
CODEN: DIMEDU; ISSN: 0338-1684
DT Journal
LA English

=> file ca, medline ,biosis

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	66.62	69.02
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-1.11	-1.11

FILE 'CA' ENTERED AT 18:06:49 ON 15 NOV 2000
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2000 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'MEDLINE' ENTERED AT 18:06:49 ON 15 NOV 2000

FILE 'BIOSIS' ENTERED AT 18:06:49 ON 15 NOV 2000
COPYRIGHT (C) 2000 BIOSIS(R)

=> s ingestion? or poisoning? or toxin? or

MISSING TERM AFTER TOXIN? OR

Operators must be followed by a search term, L-number, or query name.

=>

=> s ingestion? or poisoning? or toxin?

L4 652553 INGESTION? OR POISONING? OR TOXIN?

=> s blood?

L5 35 BLOOD?

=> s blood?

L6 3649758 BLOOD?

=> s oxygen?

L7 933131 OXYGEN?

=> s ozone?

L8 66011 OZONE?

=> s 18 (p) 17 (p) 14 (p) 16

L9 0 L8 (P) L7 (P) L4 (P) L6

=> s 18 (p) 17 (p) 16

L10 88 L8 (P) L7 (P) L6

=> s disorder? or 14

L11 1764157 DISORDER? OR L4

=> s 14 and 110

L12 0 L4 AND L10

=> s 111 and 110

L13 3 L11 AND L10

=> dup rem 113

PROCESSING COMPLETED FOR L13

L14 3 DUP REM L13 (0 DUPLICATES REMOVED)

=> d 1-3 ab,bib

L14 ANSWER 1 OF 3 CA COPYRIGHT 2000 ACS

AB A review with 13 refs. Low-dose **ozone** therapy in the form of extracorporeal **blood** treatment produces an activation of the erythrocytic metab. which, among other factors, becomes noticeable by an increase in ATP; this implies a general activation of the red **blood** cell metab. A quant. increase in the deoxygenating substance 2,3-diphosphoglycerate is the cause for the **oxygen**-liberating effect of **ozone**, and for a participation of the peroxides formed from **ozone** in the pentose phosphate path of glycolysis. On the basis of these effects, we are able to explain, at least in part, the pos. effects of therapy in the form of treatment with

reintroduced, **ozone**-enriched **blood** in arterial circulatory disorders, esp. in diabetics. As far as the effect of **ozone** on the white **blood** cells is concerned, investigations carried out by BOCCI have now provided us with a knowledge of the dose-dependent effect of **ozone** on immune competent cells, which also makes up an important building block in the pattern of explanation for an effective **ozone** therapy, particularly in the indications: infections, virus-dependent diseases, as well as in the field

of geriatrics. These and further results from basic research provide a new basis for the performance of clin. controlled studies in the field of the indications cited.

AN 126:98750 CA
TI Metabolic activation under ozone-therapy at low doses
AU Viebahn, R.
CS Italy
SO Acta Toxicol. Ther. (1996), 17(2-3), 87-100
CODEN: ATTJHE; ISSN: 0393-635X
PB Maccari
DT Journal; General Review
LA English

L14 ANSWER 2 OF 3 CA COPYRIGHT 2000 ACS

AB The use of **ozone** in the treatment of peripheral vascular disease (PVD) is increasing. The purpose of this study was to evaluate the effect

of **ozone** on Hb **oxygen** affinity in Type-2 diabetic patients with PVD. Twenty diabetic patients presenting with PVD (Clin. stage II-IV according to Fontaine) and 20 non-diabetic healthy matched subjects were studied. In both groups, aliquots of **blood** were ozonized with mixts. of **oxygen-ozone** (O2-O3) to reach end-concns. of 6.5, 13, 26 and 78 $\mu\text{g O}_3$ per mL of substrate. At baseline, diabetic patients presented significantly lower Hb **oxygen** affinity values but higher plasma levels of free Hb and malonyl dialdehyde (MDA) than controls. In both diabetic patients and controls, exposure of **blood** to **ozone** reduced Hb **oxygen** affinity in an all-or-none fashion, without changing 2,3-diphosphoglycerate concns. in erythrocytes. Both free Hb and MDA concns. showed significant, dose-dependent increases after **blood** ozonization. Thus, **ozone** caused a significant increase in **oxygen** unloading of Hb in both normal subjects and Type-2 diabetic patients with PVD.

AN 124:164900 CA
TI Influence of ozone on hemoglobin oxygen affinity in type-2 diabetic patients with peripheral vascular disease: In vitro studies
AU Coppola, L.; Giunta, R.; Verrazzo, G.; Luongo, C.; Sammartino, A.; Vicario, C.; Giugliano, D.
CS Department Gerontology, Geriatrics and Metabolic Diseases, Second University Naples, Naples, Italy
SO Diabete Metab. (1995), 21(4), 252-5
CODEN: DIMEDU; ISSN: 0338-1684
DT Journal
LA English

L14 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2000 BIOSIS

AB The effect on **ozone** on lipid peroxidation status, some indices of carbohydrate metabolism, pH status, and gas composition was studied in dog's **blood** taken in the period following resuscitation after hemorrhagic shock. The **blood** was exposed to an **ozone-oxygen** mixture. Lipid peroxidation was assessed based on the content of molecular products. Indices of carbon dioxide and **oxygen** status were studied. It was found that extracorporeal processing of **blood** with **ozone** at a concentration of 0.048 mg/l corrected postischemic disorders and saturated the **blood** with **oxygen** without a simultaneous activation of lipid peroxidation.

AN 1991:427723 BIOSIS
DN BA92:83888
TI LIPID PEROXIDATION AND GAS COMPOSITION IN THE BLOOD AFTER OZONE THERAPY FOLLOWING RESUSCITATION.
AU ALMAZOV V A; KONTORSHCHIKOVA K N; GUREVICH V S
CS LENINGR. RES. INST. CARDIOL., MINIST. HEALTH RSFSR, LENINGRAD, USSR.
SO BYULL EKSP BIOL MED, (1991) 111 (5), 486-488.
CODEN: BEBMAE. ISSN: 0365-9615.
FS BA; OLD
LA Russian

=> s 14 (p) 16

L15 60204 L4 (P) L6

=> s 115 (p) oxygen? (p) ozone?

L16 0 L15 (P) OXYGEN? (P) OZONE?

=> s (p) oxygen? (p) ozone?

MISSING TERM BEFORE '(P'

Search expressions cannot begin with operators.

=> s oxygen? (p) ozone?

L17 4847 OXYGEN? (P) OZONE?

=> s 115 and 117

L18 1 L15 AND L17

=> d

L18 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2000 BIOSIS
AN 1997:263577 BIOSIS
DN PREV199799570180
TI Use of ozone in medicine.
AU Idov, I. E.
CS Dep. Anesthesiol. Resusc., Ural State Med. Acad., Ekaterinburg Russia
SO Anesteziologiya i Reanimatologiya, (1997) Vol. 0, No. 1, pp. 90-94.
ISSN: 0201-7563.
DT General Review
LA Russian

=> d ab,bib

L18 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2000 BIOSIS
AN 1997:263577 BIOSIS
DN PREV199799570180
TI Use of ozone in medicine.
AU Idov, I. E.
CS Dep. Anesthesiol. Resusc., Ural State Med. Acad., Ekaterinburg Russia
SO Anesteziologiya i Reanimatologiya, (1997) Vol. 0, No. 1, pp. 90-94.
ISSN: 0201-7563.
DT General Review
LA Russian

=> d ab,bib

L18 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2000 BIOSIS
AN 1997:263577 BIOSIS
DN PREV199799570180
TI Use of ozone in medicine.
AU Idov, I. E.
CS Dep. Anesthesiol. Resusc., Ural State Med. Acad., Ekaterinburg Russia
SO Anesteziologiya i Reanimatologiya, (1997) Vol. 0, No. 1, pp. 90-94.
ISSN: 0201-7563.
DT General Review
LA Russian